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10/020,336	12/12/2001	Michael Hack	UDC-0002	1742

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Woodcock Washburn LLP
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EXAMINER

NGUYEN, TU X

ART UNIT	PAPER NUMBER
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2684

DATE MAILED: 04/09/2004

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/020,336

Applicant(s)

HACK ET AL.

Examiner

Tu X Nguyen

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-55 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3-4,6-7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, "surface area larger than any cross-sectional area of the housing" as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 10, 20, 21, 23, 25-28, 30, 33 and 48, are rejected under 35 U.S.C. 102(e) as being anticipated by Gettemy et al. (US Pub. 2003/0098857).

Regarding claim 1, Gettemy et al. disclose a display communication device comprising:

a housing that contains a processor (see par.001-002, 007, 0010);

means, coupled to the processor, for receiving input radio signals (see par.007,0030); and

a collapsible display that is mechanically coupled to the housing and electrically coupled to the processor (see par.023-024,0030)

wherein the display has a surface area that is larger than any cross-sectional area of the housing (see par.023 and fig.1) and the processor is adapted to extract display data from the input radio signals, and to provide a representation of the display data to the display (see par.024,0030).

Regarding claims 2-3, Gettemy et al. disclose means for transmitting output radio signals, and the processor is further adapted to receive commands from the display and to form the output radio signals based on the received commands (see par.0030-31, "handheld computer, touch screen input" reads on "received commands").

Regarding claim 10, Gettemy et al. disclose the housing contains a low voltage power supply (see par.0008).

Regarding claims 20-21, Gettemy et al. disclose the display provides touch signals to the processor and the processor performs responsive operations in response to receiving the touch signals (see par.0030).

Regarding claim 23, Gettemy et al. fail to disclose the display memory is embedded into the display (see par.0030).

Regarding claim 25, Gettemy et al. fail to disclose the display memory is contained in the housing. An Official notice is taken that the concept the display memory is contained in the housing is well known in the art. It would have been obvious

Art Unit: 2684

a handheld computer (100) as disclose by Gettemy which contain a memory in order to execute computer programs.

Regarding claims 26-28, Gettemy et al. disclose the display is removably coupled to the housing (see par.0002, 0005, 0024).

Regarding claims 30 and 48, Gettemy et al. disclose the display includes a plurality of bistable pixels (see par.0025).

Regarding claim 33, Gettemy et al. disclose the processor includes a microprocessor (see par.0024).

4. Claims 4-9, 12, 14-20, 29, 35-36, 49 and 54-55, are rejected under 35 U.S.C. 103(a) as being unpatentable over Gettemy et al. in view of Wilk (US Patent 6,643,124).

Regarding claims 4-5, Gettemy et al. fail to disclose a speaker.

Wilk discloses a speaker (see col.7 lines 9-20). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Gettemy with the above teaching of Wilk in order to provide receiving/reproducing audio signals.

Regarding claim 6, the modified Gettemy et al. fail to disclose the processor is adapted to form the output radio signals by modulating a carrier signal with a representation of the input audio signal. An Official notice is taken that the concepts of modulating signals before transmit are well known in the art. It would have been obvious to one of ordinary skill in the art at the time the invention an audio signals being

modulated into higher frequency in order to transmit signals in an air-interface communications.

Regarding claims 7-8, the modified Gettemy et al. disclose determine whether the input audio signals are telephone signals or commands (see Wilk, col.9 lines 42-45).

Regarding claim 9, the modified Gettemy et al. disclose adapted to connect to the Internet (see Wilk, col.4 lines 31-32).

Regarding claim 12, Gettemy et al. fail disclose the means for receiving input radio signals is a smart antenna.

Wilk discloses the means for receiving input radio signals is a smart antenna (see col.8 lines 60-61). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Gettemy et al. with the above teaching of Wilk in order to provide a cellular antenna for transmitting/receiving telecommunication signals.

Regarding claim 14, Gettemy et al. fail to disclose a plurality of smart pixels.

Wilk discloses a plurality of smart pixels (see col.4 lines 41-55). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Gettemy et al. with the above teaching of Wilk in order to provide pixels in small or large screen display.

Regarding claims 15-20, Gettemy et al. fail to disclose a rotationally coupled to the housing and fixedly coupled to a first end of the display such that the display can be wound around the rod.

Wilk discloses a rotationally coupled to the housing and fixedly coupled to a first end of the display such that the display can be wound around the rod (see col.8 lines 41-57). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Gettemy with the above teaching of Wilk in order to provide a support for a flexible display wound around.

Regarding claims 29 and 49, Gettemy et al. fail to disclose the display data is video data.

Wilk displays a flexible video screen (see par.8 lines 59-67). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Wilk with the above teaching of Gettemy et al. in order to provide a video screen for displaying video data.

Regarding claims 35-36, Gettemy et al. fail to disclose the device is voice activated.

Wilk discloses the device is voice activated (see col.9 lines 27-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Gettemy et al. with the above teaching of Wilk in order to provide hand free operation.

Regarding claims 54-55, the modified Gettemy et al. disclose everything as claim 1 above. More specifically, the modified Gettemy et al. disclose a cellular telephone device which inherently transmits/receives signals to a base station, an air-interface transportation medium communication between a portable cellular phone and a public telephone switching network.

5. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gettemy et al. in view of Comiskey et al. (US Patent 6,459,418).

Regarding claims 10-11, Gettemy et al. fail to disclose the first power supply includes a thin film battery.

Comiskey et al. disclose a thin film battery (see col.15, lines 49-50). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Gettemy et al. with the above teaching of Comiskey et al. in order to provide thin and light battery for the display.

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gettemy et al. in view of Dowling et al. (US Pub. 2003/0050019).

Regarding claim 13, Gettemy et al. fail to disclose third generation digital radio standards.

Dowling et al. disclose third generation digital radio standards (see par. 0004). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Gettemy et al. with the above teaching of Dowling in order to provide circuit switched analog technology to packet switched digital technology as suggested by Dowling et al.

Art Unit: 2684

7. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gettemy et al. in view of Dowling et al. and further in view of Matsuo et al. (US Pub. 2002/0055938).

Regarding claim 31, the modified Gettemy et al. fail to disclose a pixel address and a brightness that corresponds to a pixel located at the pixel address.

Matsuo et al. disclose a pixel address and a brightness that corresponds to a pixel located at the pixel address (see par.0094-0097 and 0176-0178). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Gettemy et al. and Dowling et al. with the above teaching of Matsuo et al. in order to provide a display driver outputs the voltage corresponding to the decoded pixel data to respective row wiring and the column wiring corresponding to the decoded pixel data.

8. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gettemy et al. in view of Pawlowski et al. (US Pub. 2003/0117382).

Regarding claim 24, Gettemy et al. fail to disclose the display memory is embedded into the pixels.

Pawlowski et al. disclose the display memory is embedded into the pixels (see par.051). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Gettemy with the above teaching of Pawlowski in order to provide continuous display in the same data over and over.

9. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gettemy et al. in view of Kang et al. (US Patent 5,452,092).

Regarding claim 32, Gettemy et al. fail to disclose compare a current image with a previous image, to identify one or more pixels having a pixel brightness that needs to be changed to convert the display from the previous image to the current image, and to provide the display with display data that causes the pixel brightness of the one or more identified pixels to change.

Kang et al. disclose compare a current image with a previous image, to identify one or more pixels having a pixel brightness that needs to be changed to convert the display from the previous image to the current image, and to provide the display with display data that causes the pixel brightness of the one or more identified pixels to change (see col.4 lines 37-66). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Gettemy et al. with the above teaching of Kang et al. in order to provide a changing pixel detector between previous line and a current line of data.

10. Claims 34 and 37-38, are rejected under 35 U.S.C. 103(a) as being unpatentable over Gettemy et al. in view of Pettazzi et al. (US Patent 6,239,812).

Regarding claims 34 and 37-38, Gettemy et al. fail to disclose local processing power for each pixel.

Pettazzi et al. disclose local processing power for each pixel (see col.2 lines 31-57). Therefore, It would have been obvious to one of ordinary skill in the art at the time

Art Unit: 2684

the invention was made to modify the system of Gettemy et al. with the above teaching of Pettazzi et al. in order to provide local processor controls the execution of the transformation without significantly adding any overhead to the hardware performances.

11. Claims 39-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gettemy et al. in view of Pettazzi et al. and further in view of Jacobson et al. (US Patent 6,445,489).

Regarding claim 39, the modified Gettemy et al. disclose the pixels are adapted to configure themselves with respect to grayscale and resolution.

Jacobson et al. disclose the pixels are adapted to configure themselves with respect to grayscale and resolution (see col.8 lines 31-45). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of the modified Gettemy et al. with the above teaching of Jacobson et al. in order to provide low voltage driven power display.

Regarding claims 40-41, the modified Gettemy et al. disclose the pixels include groups of subscribers-pixels, and each subscribers-pixel includes a numbers of light emitting devices (see Jacobson, col.8 lines 31-45).

Regarding claims 42-44, the modified Gettemy et al. disclose a plurality of organic light emitting devices (see Jacobson, col.5 lines 54-65).

Regarding claim 45, the modified Gettemy et al. disclose the display comprises a plurality of stacked organic light emitting devices (see Jacobson, col.6 lines 1-2).

Regarding claim 46, the modified Gettemy et al. disclose the OLEDs form bistable pixels (see Jacobson, col.9 lines 11-30).

Regarding claim 47, the modified Gettemy et al. disclose the OLEDs are integrated with organic photodetectors (see Jacobson, col.2 lines 37-59).

Regarding claim 48, the modified Gettemy et al. disclose the OLEDs form bistable pixels (see Jacobson, col.9 lines 19-20).

12. Claims 50-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gettemy et al. in view of Wilk and further in view of Jacobsen et al. (US Pub. 2001/0017604).

Regarding claim 50-51, the modified Gettemy et al. fail to disclose the display comprises a display border and the video imager is integrated into the display border.

Jacobsen et al. disclose the display comprises a display border and the video imager is integrated into the display border (see par. 0153). Therefore It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of the modified Gettemy et al. with the above teaching of Jacobsen et al. in order to provide define visual border as seen by the user through transparent window.

Art Unit: 2684

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu Nguyen whose telephone number is (703) 305-3427. The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MAUNG NAY A, can be reached at (703) 308-7749.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center 2600 Customer Service Office at (703) 306-0377.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Tu
4/2/04


NAY MAUNG
SUPERVISORY PATENT EXAMINER